



State of Rhode Island
Office of the General Treasurer
State House – Room 102
Providence, Rhode Island 02903

Seth Magaziner
General Treasurer

June 9, 2021

Honorable Marvin L. Abney, Chair
House Committee on Finance

Re: H6356- An Act Authorizing the City of Providence to Finance a Contribution Towards the Unfunded Pension Liability of the Employee Retirement System of the City of Providence by the Issuance of Bonds

Dear Chair Abney,

As General Treasurer, my priority is to promote economic growth and financial security for all Rhode Islanders. Everyone in our state deserves a secure retirement, especially those who have spent their careers serving the community as first responders and municipal workers.

Having reviewed H6356 and supporting materials provided by the Providence Mayoral administration, I cannot recommend support of the legislation at this time.

While I appreciate the effort of all involved in trying to address the unfunded liability of the Providence pension system, pension obligation bonds are a risky strategy with a mixed track record. As of the drafting of this letter, the presentations made by the City's Administration so far have not included either a clear accounting of the potential financial benefit of the proposal, nor a clear strategy for mitigating the risks associated with the proposal. Once a pension obligation bond is issued there is no turning back. At this time, I cannot recommend approval of the legislation or the pension obligation bond proposal as presented.

Introduction:

Pension systems can be an effective vehicle for providing retirement security for public employees and their families. However, it is vitally important that these systems be managed prudently and responsibly to remain affordable for taxpayers and sustainable for retirees.

As a steward of the State's retirement system, our administration has implemented a Back to Basics investment strategy that has earned over \$3 billion of investment gains, launched a Transparent Treasury Initiative that made Rhode Island's State pension system a model for financial disclosure, and maintained strong financial controls and funding policies in accordance with actuarial best practices. As a result, the funded status of the state pension system has improved three years in a row, and the unfunded liability decreased last year by more than \$100 million.

We also worked closely with the City of Central Falls in 2019 to develop and implement a plan to make the Central Falls Police and Firefighter pension plan more sustainable. This plan, the product of months of negotiations between the Central Falls Administration, unions, and our Office, included changes to the benefit structure and funding policy of the plan and a transfer of administration of the plan to our Office.

The City of Providence pension system suffers from a history of mismanagement that has led to unsustainable costs and an uncertain future. The Providence Administration is asking the General Assembly to approve a plan for the City to issue more than \$700 million of pension obligation bonds (POBs) to raise funding to deposit into the City's pension fund, under the argument that the investment earnings the bond proceeds will generate once deposited into the pension trust will exceed the cost of debt service on the bond, thus reducing overall liability servicing costs to the City over time.

Background on Pension Obligation Bonds

POBs are an increasingly common, though controversial and risky, strategy to help cities and states manage the costs of their pension liabilities. The basic theory behind POBs is that the interest rate a city might pay on a bond (even a taxable bond, as POBs generally must be) will be lower than the investment earnings the bond proceeds would generate in the pension trust, thus lowering overall liability servicing costs over time.

The experience of POBs in other states and cities is mixed. Some POBs have worked as advertised, with the investment earnings of bond proceeds outperforming the interest rate paid on the bond. In other well documented cases, however, POBs have locked municipalities into inflexible payment schedules and the proceeds have failed to generate strong investment returns either due to poor timing or poor execution. In these cases, the health of pension funds continued to deteriorate and annual pension costs rose, on top of contractually obligated bond payments. The cities of Detroit, Michigan and Stockton, California were ultimately pushed into bankruptcy in the years following the issuance of POBs.

Due to the risks involved in POBs, the Government Finance Officers Association recently reaffirmed its guidance advising state and local governments not to issue POBs regardless of economic conditions.

Backloading of Liability Payments and Inability to Define Potential Benefit of POB

In assessing whether to support any proposal, one must compare the likely benefits of the proposal with the likely risks. The presentations provided by the City Administration thus far do not clearly demonstrate the amount of financial benefit that would result from issuing a POB.

It is important to understand that the proposal put forward by the City Administration contains two parts. One part of the proposal is an attempt to borrow money at a low interest rate and earn a higher rate through investment returns. The other part of the proposal involves pushing the schedule of payments on both the bond and the remaining pension liability into the out-years.

Pushing payments into the out years is a strategy that raises its own set of pros and cons, but does not require a bond, or General Assembly approval. In determining whether the benefits of a POB justify the risks, it is important to know how much near-term savings is expected to come purely from the difference between the projected investment return and the bond interest rate – also known as arbitrage – as opposed to from pushing payments into the out years. Despite multiple requests, the City has not provided that information at the time of the writing of this letter.

The current amortization period of the unfunded liability of the Providence pension is 19 years, meaning the City is currently scheduled to pay off its prior unfunded liability by 2041. The legislation submitted by the Providence Administration requests permission to issue a POB with a term of up to 30 years, in effect extending the 19-year payment schedule toward the unfunded liability of the pension system by up to an additional decade.

An initial presentation made to our Office by the City Administration suggested that the Administration is considering a bond term of 25 years, with bond payments backloaded into the outyears, and also a re-amortization of the remaining unfunded pension liability to 25 years. Therefore a large portion of the short-term cash flow savings the City is projecting for this proposal likely come not from a low interest rate of the POB but instead from pushing payments off to the out years.

Re-amortization of payments to outyears is a tool often employed by pension systems, and was employed by the State pension system and by Providence a decade ago to help manage the fiscal stress caused by the Great Recession. Pension systems must resist the temptation to re-amortize too frequently however, as “kicking the can” generally leads to additional long-term costs that exceed short-term savings.

We will not opine on whether this is an appropriate time for the City to re-amortize its unfunded pension liability. One argument in favor of re-amortization is that the City recently lowered its actuarial discount rate from 8% to 7%, and the adoption of more conservative discount rates is often viewed as an appropriate time to re-amortize pension contribution schedules to some degree. On the other hand, the coming infusion of federal stimulus dollars to the State and City may provide short-term budget relief that could facilitate maintaining pension contributions at their current levels to reduce the unfunded liability on a faster schedule.

At the very least, the City should provide an analysis of how much of each year's projected savings from the proposal is projected to come strictly from arbitrage between the POB interest rate and projected pension fund investment return, as opposed to any re-amortization of the liability. This analysis would only require projecting the annual cost of a scenario of a POB with a 19-year term (matching the current amortization schedule of the pension system), and comparing it with the status quo, thus isolating how much of the savings of the proposal would come strictly from the arbitrage between the projected pension investment return and the expected POB interest rate. We have asked the City for this analysis and have not yet received it.

If indeed the savings purely from the projected interest rate arbitrage are relatively modest, it may suggest that the potential benefits of the POB are not significant enough to justify the risks.

Investment Risk

The primary argument in favor of POBs is that proceeds from the bond can earn a stronger investment return than the cost of servicing the bond. Thus, the investment of POB proceeds can be a profitable exercise over time, reducing long-term costs for the issuer of the bond. However, this argument is heavily dependent on investment market timing and quality of execution.

While a typical pension investment portfolio may outperform the interest rate of taxable municipal bonds over many time horizons, it has not been true over every time horizon. Timing is important, and if proceeds from a POB are invested shortly before a stock market decline, investment earnings may fall short of the cost of borrowing the POB. A scenario like this would increase total costs to the City over time.

POBs have worked for some cities and states that have timed their issuances well, but there are also a number of examples of cities that have lost money on POBs due to poor market timing or poor investment management. For example, the Woonsocket POB floated in 2002 carried a coupon of 6.29%. The Woonsocket pension fund investment return has exceeded the coupon on the bond only one time in the past six years, and the funded status of the Woonsocket plan has decreased nearly 20% over the same time period.

In conversations with our Office, the Providence Administration has noted that interest rates are near historic lows, suggesting that the City might achieve a lower interest rate on a POB than other cities have achieved in the past. While interest rates are at low levels compared to historic norms, we also note that stock market valuations are near historic highs, suggesting that this could be a risky time to bet on the market with borrowed money. Currently, the trailing twelve months Price to Earnings ratio of the S&P 500 (a common measure of the price of the U.S. stock market) is 36.9, roughly double the historical average, and nearly as high as the peak of the dot com bubble.

NEPC Forward-Looking Analysis

Attached to this letter is an analysis from the State's primary investment consultant, NEPC, of the likelihood that the Providence pension's investment returns will exceed the potential cost of borrowing on the POB. This analysis is based on the current Providence pension asset allocation, and NEPC's proprietary investment return assumptions for each asset class. Because we do not know the exact interest rate the City would achieve on a POB, nor the length of the proposed borrowing, the analysis tests the likelihood that investment performance would exceed either 4.5% or 5.1% over the next 30 years¹. NEPC predicts a 64.9% likelihood that annualized investment returns would exceed 5.1% and 74.1% likelihood that returned will exceed 4.5%. Thus, while NEPC projects that it is more likely than not that

¹ Note that investment performance of the pension fund would need to slightly exceed the interest rate of the POB in order for the proposal to "break even", to account for the volatility of returns from year to year.

Providence will save money under this proposal, the odds that the proposal could lead to higher overall costs to the City are still significant (a 25.9% or 35.1% chance of higher overall costs, depending on the interest rate achieved).

Historical Investment Return Analysis

While NEPC's analysis is helpful, any forward-looking prediction of future investment returns are inherently speculative by nature. Therefore, it is also helpful to look at how often a POB proposal like the Providence proposal would have worked in the past. Attached to the letter is an analysis prepared by our Investment office that provides useful context. The analysis works as follows:

- The City of Providence's financial advisors believe that in the current interest rate environment, the City can achieve an interest rate of approximately 4% on a POB with a 25-year term. This rate represents roughly a 1.75% spread above current the 20-year US Treasury Bond Yield of 2.2%. (The US Treasury does not typically issue 25-year bonds, so we use the 20-year yield as a benchmark).
- Our Investment team analyzed how often a typical 60% stock / 40% bond portfolio has outperformed the 20 US Treasury Yield + 1.75% over a 20-year period. We used 20-year periods for the analysis because it is equivalent to the remaining amortization period of the Providence pension liability.
- The analysis is performed for every month going back as far as data is available (February of 1976). For time periods beginning within the past 20 years, for which a full 20 years of performance is not yet available, results are presented to date.
- The results show that across 543 historical periods dating back to February of 1976, a 60% stock / 40% bond portfolio has underperformed the 20-year US Treasury yield +1.75% in 293 periods, or 54% of the time.
- Of the 250 periods (46% of the total) in which the 60/40 portfolio outperformed, 198 of them occurred within the past 20 years, meaning they have not yet been tested over a full 20-year period.

This analysis suggests that the historical outcome of a proposal like the Providence POB generating positive net performance has been inconsistent at best. While past performance is not a guarantee of future results, the range of uncertainty in investment outcomes is high and must be considered carefully. The chance that the City will end up owing more under this proposal, instead of less, cannot be ruled out and in fact would have been more common than not over the past 45 years.

Investment Stress Tests

The Providence Administration has provided the results of investment stress tests performed by the City that suggest the proposal will allow the City to save money even if the annual investment returns of the bond proceeds are as low as 4.725%. However, it appears that this result is arrived at by applying a 4% discount rate to future cash flows, creating a result that we believe to be misleading.

Because the proposal includes a partial re-amortization of liability payments by adopting a 25-year bond term with bond payments back-loaded into the later years, most of the savings of the proposal occurs in the early years and most of the cost comes in the out-years. It is appropriate to apply some discount rate to those future cash flows to account for inflation, but 4% is higher than most long-term inflation expectations, which currently range between 2% and 3%.² Applying a lower discount rate to the stress test will likely reveal a higher investment return hurdle necessary for the proposal to break even. We have requested that the City produce new runs of the stress test applying alternative discount rates, but we have not yet received that data as of the writing of this letter.

Lack of Flexibility in Bond Covenants

One drawback to POBs is that, like most municipal bonds, the City would have very little flexibility in the requirement that all payments be made in full and on time. Bond covenants are legal contracts between bond issuers and bond holders, and if the City were ever to miss making a payment on time and in full, the City could face legal liability from bondholders and significant downgrades from credit rating agencies.

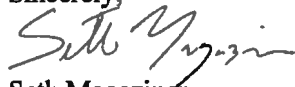
² As of the writing of this letter the current spread between 20-year Treasury inflation-indexed bonds and non-indexed bonds is 2.4%.

In contrast, rules governing payments into pension systems tend to be less rigid. While states and cities should always endeavor to make their full annual actuarially determined contribution (ADC) into a pension system, they generally retain flexibility to make less than their full ADC, or to re-amortize their payment plan, during times of budget stress. Providence is in an unusual situation in this regard, having signed a consent decree with union and retiree groups that among other provisions requires the City to make at least 95% of its ADC every year through 2033. However, even this requirement provides more flexibility than a POB covenant likely would, as it allows the City to make less than 100% of a payment in any given year, is silent as to when within a fiscal year the City must make the 95% payment, contains no 95% requirement beyond 2033, and allows the City to re-amortize the payment plan if necessary with few restrictions.

Conclusion:

Pension Obligation Bonds are based on a gamble. The issuer borrows money on inflexible terms, betting that they will earn more by investing the proceeds than will be owed in interest to the bondholders. Historically, the results of this gamble have been mixed at best. The Providence administration should provide a clear analysis of the potential benefits and risks of a POB (exclusive of any re-amortization of liability payments). At present, our Office cannot recommend support of this proposal.

Sincerely,



Seth Magaziner
General Treasurer

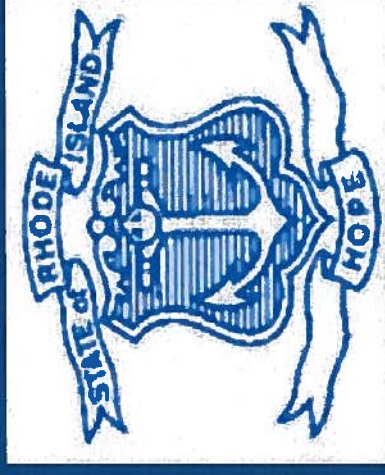
cc: Honorable Members of the House Committee on Finance
Honorable K. Joseph Shekarchi, Speaker of the House
Honorable Scott Slater

STATE OF RHODE ISLAND

ASSET ALLOCATION REQUEST

May, 2021

Will Forde, CFA, CAIA, Principal
Kevin Leonard, Partner



BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

ASSET ALLOCATION

	Portfolio A	Portfolio B
Domestic Equity	53%	53%
Non-US Developed Equity	13%	13%
Total Equity	66%	66%
US Investment Grade Fixed Income	23%	23%
Non-US Government Bond	3%	3%
Total Fixed Income	26%	26%
Hedge Fund	8%	8%
Total Multi Asset	8%	8%
Expected Return 10 yrs	4.70%	4.74%
Expected Return 30 yrs	5.91%	5.97%
Standard Dev	12.2%	12.5%
	10 Year	
Probability of Meeting 4.5%	52.1%	52.4%
Probability of Meeting 5.1%	45.9%	46.4%
	30 Year	
Probability of Meeting 4.5%	73.7%	74.1%
Probability of Meeting 5.1%	64.2%	64.9%

Sum of Difference
between Annualized
Return of 60/40 and
20-YR
Treasury+175bps

Column Labels

Row Labels	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1976		2.13%	2.18%	2.26%	2.07%	2.24%	2.18%	2.16%	2.30%	2.49%	2.71%	3.23%
1977	2.69%	2.73%	2.69%	2.67%	2.68%	3.03%	3.11%	3.33%	3.11%	3.14%	3.02%	2.91%
1978	2.65%	2.80%	3.04%	2.93%	2.70%	2.55%	2.46%	2.43%	1.87%	1.72%	2.05%	2.21%
1979	2.21%	2.12%	2.01%	1.96%	2.02%	2.19%	2.18%	2.09%	1.71%	0.87%	1.08%	1.19%
1980	0.88%	-1.01%	-1.12%	0.59%	0.95%	1.14%	0.67%	-0.21%	-0.46%	-0.98%	-1.78%	-2.14%
1981	-1.83%	-2.32%	-2.52%	-3.43%	-3.47%	-2.90%	-3.70%	-4.20%	-4.77%	-4.85%	-3.40%	-3.82%
1982	-4.50%	-4.46%	-3.57%	-3.22%	-3.40%	-4.05%	-3.63%	-3.09%	-2.65%	-1.91%	-1.61%	-1.68%
1983	-2.14%	-2.57%	-2.50%	-2.46%	-2.48%	-2.65%	-3.17%	-3.43%	-3.24%	-3.25%	-3.20%	-3.35%
1984	-2.97%	-3.15%	-3.46%	-3.79%	-4.68%	-4.44%	-4.24%	-3.66%	-3.67%	-3.26%	-2.91%	-2.76%
1985	-2.66%	-3.06%	-3.29%	-3.16%	-2.73%	-2.31%	-2.46%	-2.47%	-2.56%	-2.40%	-2.29%	-1.91%
1986	-1.88%	-1.28%	-0.66%	-0.39%	-0.70%	-0.65%	-0.43%	-0.41%	-0.90%	-0.74%	-0.39%	-0.32%
1987	-0.29%	-0.81%	-0.92%	-1.79%	-2.32%	-2.03%	-2.14%	-2.59%	-3.38%	-3.17%	-1.89%	-2.07%
1988	-1.98%	-1.90%	-2.31%	-2.75%	-2.93%	-2.62%	-3.07%	-3.39%	-2.97%	-3.41%	-4.50%	-4.79%
1989	-4.61%	-5.12%	-5.60%	-5.17%	-4.68%	-3.78%	-3.59%	-3.75%	-3.55%	-3.32%	-3.21%	-3.17%
1990	-3.63%	-3.80%	-3.70%	-3.50%	-3.39%	-3.80%	-3.90%	-4.01%	-3.91%	-3.11%	-2.99%	-2.75%
1991	-2.66%	-2.50%	-2.93%	-2.81%	-2.74%	-3.07%	-2.92%	-2.77%	-2.78%	-3.10%	-2.79%	-2.48%
1992	-2.66%	-2.68%	-2.64%	-2.41%	-2.74%	-2.17%	-1.92%	-1.82%	-1.91%	-1.99%	-1.87%	-1.87%
1993	-1.73%	-1.35%	-1.16%	-1.29%	-1.39%	-1.42%	-1.37%	-1.06%	-1.00%	-1.16%	-1.42%	-1.19%
1994	-1.29%	-1.75%	-1.97%	-2.17%	-2.34%	-2.23%	-2.32%	-2.43%	-2.69%	-2.88%	-3.05%	-2.61%
1995	-2.69%	-2.45%	-2.22%	-2.31%	-1.94%	-1.62%	-1.88%	-2.15%	-2.05%	-2.06%	-1.67%	-1.62%
1996	-1.80%	-2.22%	-2.65%	-2.70%	-2.83%	-2.92%	-2.88%	-2.46%	-2.69%	-2.57%	-2.39%	-2.68%
1997	-2.79%	-2.61%	-2.83%	-2.86%	-2.75%	-2.70%	-2.59%	-2.79%	-2.44%	-2.40%	-2.02%	-1.89%
1998	-1.71%	-1.76%	-2.17%	-2.36%	-2.39%	-2.12%	-2.20%	-1.98%	-1.24%	-1.26%	-1.96%	-1.99%
1999	-2.44%	-2.48%	-2.47%	-2.48%	-2.76%	-3.05%	-2.88%	-2.99%	-3.06%	-3.16%	-3.06%	-3.27%
2000	-3.59%	-3.06%	-3.17%	-3.65%	-3.51%	-3.00%	-2.97%	-2.54%	-2.55%	-2.46%	-2.47%	-1.56%
2001	-1.52%	-1.63%	-1.19%	-1.20%	-1.40%	-1.25%	-1.05%	-0.86%	-0.65%	-0.16%	-0.23%	-0.79%
2002	-0.70%	-0.50%	-0.78%	-0.78%	-0.64%	-0.47%	-0.11%	0.51%	0.82%	1.08%	0.84%	0.72%
2003	0.87%	1.16%	1.28%	1.24%	1.34%	1.31%	0.71%	0.28%	0.40%	0.35%	0.24%	0.27%
2004	0.16%	0.18%	0.35%	-0.05%	-0.17%	-0.15%	-0.00%	0.31%	0.46%	0.46%	0.34%	0.20%
2005	0.18%	0.44%	0.09%	0.86%	0.64%	0.79%	0.64%	0.51%	0.51%	0.24%	0.31%	0.30%
2006	0.30%	0.07%	-0.08%	-0.42%	-0.63%	-0.38%	-0.31%	-0.17%	-0.13%	-0.18%	-0.16%	-0.26%
2007	-0.47%	-0.46%	-0.33%	-0.51%	-0.72%	-1.10%	-0.92%	-0.61%	-0.45%	-0.64%	-0.50%	-0.34%
2008	-0.03%	0.19%	0.39%	0.39%	0.02%	-0.13%	0.45%	0.71%	1.01%	1.61%	2.98%	4.36%
2009	3.85%	4.06%	4.77%	4.33%	3.41%	2.68%	2.88%	2.48%	2.47%	2.25%	2.32%	1.94%
2010	1.86%	2.13%	2.08%	1.76%	2.20%	2.98%	3.34%	3.17%	3.47%	2.93%	2.45%	2.33%
2011	1.88%	1.66%	1.64%	1.76%	1.77%	2.02%	2.16%	2.99%	3.89%	4.50%	4.04%	4.34%
2012	4.34%	3.99%	3.54%	3.67%	4.07%	4.97%	4.78%	4.52%	4.33%	4.18%	4.43%	4.33%
2013	4.07%	3.70%	3.75%	3.87%	3.48%	3.32%	3.46%	2.93%	3.20%	2.97%	2.56%	2.39%
2014	2.44%	2.92%	2.57%	2.74%	2.84%	2.65%	2.66%	3.05%	2.80%	3.45%	3.44%	3.51%
2015	4.13%	4.14%	3.65%	3.97%	3.50%	3.44%	3.98%	4.07%	4.92%	5.57%	4.61%	4.92%
2016	5.44%	6.53%	6.67%	5.98%	5.90%	6.20%	6.57%	6.05%	6.10%	6.07%	6.25%	6.18%
2017	6.11%	5.93%	5.57%	5.78%	5.64%	5.59%	5.55%	5.52%	5.64%	5.41%	5.34%	5.19%
2018	4.98%	4.05%	5.35%	6.02%	6.10%	6.25%	6.66%	6.24%	6.08%	6.22%	8.80%	9.17%
2019	11.72%	9.84%	9.57%	9.37%	8.91%	11.47%	9.50%	10.39%	11.21%	11.25%	10.77%	10.33%
2020	9.87%	10.74%	16.87%	28.71%	22.58%	18.93%	17.13%	13.33%	9.42%	11.97%	14.55%	6.12%
2021	3.61%	4.76%	4.00%	2.79%								

	#	%
60/40 outperform	250	46%
60/40 underperform	293	54%
# of Month Included in the analysis	543	

*Due to the availability of certain benchmarks, this analysis is based off on data from Feb-1976 to April 2021, a total of 543 months or 45.25 years.

*60/40 is defined as 60 In MSCI World (Net) and 40 In Agg - Bloomberg Barclays US Aggregate Bond

*60/40 is compared against with 20-Year Treasury Constant Maturity Rate (CMT) plus 175bps.

Average Δ	0.55%
Conditional Δ (60/40 > 20yr CMT + 175bps)	3.86%
Conditional Δ (60/40 < 20yr CMT + 175bps)	-2.27%
Avg Check	0.00%

Distribution	Percentile	Value
	0.05	-3.67%
	0.25	-2.48%
	0.5	-0.39%
	0.75	2.72%
	0.95	6.56%